Training and Evaluation Outline Report

Status: Approved
10 Oct 2014
Effective Date: 18 Oct 2016

Task Number: 05-PLT-5720

Task Title: Select a Temporary Power Plant Site

Distribution Restriction: Approved for public release; distribution is unlimited.
Destruction Notice: None
Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the Fort Leonard Wood, MSCoE foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ATP 5-19 (Change 001 09/08/2014 78 Pages)	RISK MANAGEMENT http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp5_19.pdf	Yes	No
	EM 385-1-1	Safety and Health Requirements.	Yes	No
	NESC®	National Electrical Safety Code. 2012 Edition	Yes	No
	NETA™	Maintenance Testing Specifications for Electrical Power Distribution Equipment & Systems. 2007	Yes	No
	NFPA 70	National Electrical Code	Yes	No
	NFPA 70E	Standard for Electrical Safety Requirements for Employee Workplaces. 2004	Yes	No
	TM 3-34.45	ENGINEER PRIME POWER OPERATIONS	Yes	Yes

Conditions: The element has been directed to install a temporary power plant in support of operations. The location of operations precludes using existing commercial distribution networks.The start date and duration of the power requirement is specified in the directive. The element has determined the number of generator sets to be installed and the required auxiliary items of equipment. The element has allpersonnel and equipment assigned by Table of Organization and Equipment (TOE).Work site security is established by the supported unit.

Note: The Commander must still determine at what level of training they would want the element to perform. Crawl, walk or run. This can only be determined after consideration as to the units training level.

The Commander prior to evaluating an element in the conduct of the task must determine if it will be conducted in a Live, Virtual, or Constructive environment, additionally it must also be determined which condition as described below that the element will conduct the task. The selection made for this task is at a trained level of proficiency. The commander must determine which of the environments below will best suit the unit and the proficiency level at which the unit is. When conducting crawl or walk level training units should not increase the intensity until the unit has achieved the standards and then unit trainers should include variables that increase proficiency in all conditions.

Note: The condition statement for this task is written assuming the highest training conditions reflected on the Task Proficiency matrix required for the evaluated unit to receive a "fully trained" (T) rating.

Note: Condition terms definitions:

Dynamic Operational Environment: Three or more operational and two or more mission variables change during the execution of the assessed task. Operational variables and threat Tactics, Techniques, and Procedures (TTPs) for assigned counter-tasks change in response to the execution of Blue Forces (BLUFOR) tasks.

Complex Operational Environment: Changes to four or more operational variables impact the chosen friendly COA/mission. Brigade and higher units require all eight operational variables of Political, Military, Economic, Social, Infrastructure, Information, Physical environment, and Time (PMESII-PT) to be replicated in varying degrees based on the task being trained.

Single threat: Regular, irregular, criminal or terrorist forces are present.

Hybrid threat: Diverse and dynamic combination of regular forces, irregular forces, and/or criminal elements all unified to achieve mutually benefiting effects.

This task should not be trained in MOPP 4.

Standards: The element selects the temporary power plant site(s) consistent with the generation equipment deployment concept to provide power sufficient for the operational needs of the supported unit.

Note: Leaders are defined as the Commander, Executive Officer, First Sergeant, Operations Sergeant, Platoon Leaders, Platoon Sergeants, Squad Leaders, and Team Leaders.

Live Fire Required: No

Objective Task Evaluation Criteria Matrix:

Plan and Prepare			Execute						Assess
Operational Environment		Training Environment (L/V/C)	% of Leaders Present at Training/Authorized	% of Soldiers Present at	External Eval	% Performance Measures 'GO'	% Critical Performance Measures 'GO'	% Leader Performance Measures 'GO'	Task Assessment
SQD & PLT									
Dynamic (Single Threat)	Night	IAW unit CATS statement.	>=85%	>=80%	Yes	>=91%	All	>=90%	**T**
	Day		75-84%			80-90%		80-89%	**T-**
Static (Single Threat)	Night		65-74%	75-79%	No	65-79%			**P**
	Day		60-64%	60-74%		51-64%	<All	<=79%	**P-**
			<=59%	<=59%		<=50%			**U**

Remarks: None

Notes: All required references and technical manuals will be provided by the local command.

Safety Risk: Low

Task Statements

Cue: None

DANGER

Leaders have an inherent responsibility to conduct Risk Management to ensure the safety of all Soldiers and promote mission accomplishment.

WARNING

Risk management is the Army's primary decision-making process to identify hazards, reduce risk, and prevent both accidental and tactical loss. All Soldiers have the responsibility to learn and understand the risks associated with this task.

CAUTION

Identifying hazards and controlling risks across the full spectrum of Army functions, operations and activities is the responsibility of all Soldiers.

Performance Steps and Measures

NOTE: Assess task proficiency using the task evaluation criteria matrix.

NOTE: Asterisks (*) indicate leader steps; plus signs (+) indicate critical steps.

STEP/MEASURE	GO	NO-GO	N/A
+ 1. The element conducts a preliminary assessment based upon the directive before committing assets.			
+ 2. The element leader verifies the generation equipment deployment concept.			
+ 3. The element establishes contact with the customer project officer.			
+ a. Verifies location of any existing distribution systems.			
+ b. Confirms numbers and types of troop life support activities, such as troop quarters, medical clinics, dining facilities, shower facilities, etc.			
+ c. Confirms direction flow of prevailing winds.			
+ d. Obtains critical documents, such as site plans, maps, overlays, and plans of any existing distribution systems.			
+ 4. The element identifies and inventories the generation equipment and auxiliary support items and systems selected for deployment.			
+ a. Verifies the specific model(s) of generator set(s) and the number of sets to be installed.			
+ b. Verifies the specific auxiliary support equipment and the systems to be installed (such as a central control station, a distribution substation, or an external fuel supply).			
Note: The model of the generator set, the number of sets per site, and the auxiliary support equipment/systems at each site will determine the minimum space requirements of the site. The model of the generator set will directly affect site selection since different model sets have different leveling requirements. The slope of the site selected will determine how level the set will be when installed.			
+ 5. The element coordinates transportation for the site selection element.			
+* 6. The element leader briefs the site selection element on site requirements, points of contact, and special issues.			
+ 7. The site selection element reconnoiters the proposed power plant site(s).			
+ 8. The element analyzes the power plant site(s) reconnaissance data.			
+ a. Verifies that the reconnaissance data collected is consistent with the number of sites required.			
+ b. Verifies that the space of the site(s) meets the minimum requirements for the specific model of the generator set(s) and auxiliary support equipment and/or systems to be installed, the movement of transport vehicles, and materials-handling equipment.			
+ c. Verifies existing road network to the site.			
+ d. Analyzes the site soil conditions and identifies potential problems.			
(1) Projects soil improvement construction requirements.			
(a) Considers grubbing, clearing, stripping support.			
(b) Considers compaction support.			
(c) Considers drainage improvement support.			
(2) Projects the methods and equipment for improving the soil grounding resistance.			
+ e. Analyzes potential effects of climatic conditions on prime power operations.			
+ f. Analyzes effects of terrain on plant site.			
(1) Identifies potential problems with installing equipment within leveling specifications for each specific model of generator set to be installed.			
(2) Identifies pad construction requirements for generator sets to be installed.			
(3) Analyzes effects of existing vegetation for distribution system routing.			
+ g. Analyzes environmental impact of plant site.			
(1) Considers potential effects of contamination from Petroleum, Oils and Lubricants (POL) spills.			
(2) Considers potential effects of noise pollution.			
(3) Proposes methods to abate negative environmental impact of power plant.			
+ 9. The element selects a temporary power plant site.			
+ a. Selects site(s) consistent with the deployment concept.			
+ b. Ensures that the selected site(s) will meet the general requirements for the proposed power plants.			
+ c. Ensures that the selected site(s) can support the technical and logistical requirements for the specific models of generator sets to be installed.			
+ d. Ensures that the selected site(s) is accessible to equipment transport vehicles and materials-handling equipment.			
+ 10. The element prepares the site selection After Action Report.			
a. Prepares the rationale for the specific site(s) selected.			
+ b. Prepares the requirement for any horizontal or vertical engineering construction support.			
+ c. Prepares a Bill of Materials (BOM) required for site improvements and installation of power plant.			
+ d. Prepares a site plan.			
+ e. Prepares environmental impact statement.			
+* 11. The element leader briefs the customer on the final site selection and gains site approval.			

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL PERFORMANCE MEASURES EVALUATED							
TOTAL PERFORMANCE MEASURES GO							
TRAINING STATUS GO/NO-GO							

ITERATION: **1 2 3 4 5 M**

COMMANDER/LEADER ASSESSMENT: **T P U**

Mission(s) supported: None

MOPP 4: Never

MOPP 4 Statement: None

NVG: Never

NVG Statement: None

Prerequisite Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
	05-CO-5750	Provide Prime Power Support	05 - Engineers (Collective)	Approved

Supporting Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
	05-CO-0018	Conduct Report Procedures	05 - Engineers (Collective)	Approved
	05-PLT-5715	Perform Power Plant Design Technical Assistance	05 - Engineers (Collective)	Approved
	05-PLT-5722	Prepare Power Systems Construction Estimates	05 - Engineers (Collective)	Approved
	71-CO-5100	Conduct Troop Leading Procedures for Companies	71 - Combined Arms (Collective)	Approved

OPFOR Task(s):

Task Number	Title	Status
71-CO-8502	OPFOR Execute an Ambush	Approved
71-CO-8504	OPFOR Execute a Reconnaissance Attack	Approved

Supporting Individual Task(s):

Step Number	Task Number	Title	Proponent	Status
	052-204-2207	Conduct a Safety Briefing	052 - Engineer (Individual)	Approved
	052-204-2208	Conduct a Safety Inspection	052 - Engineer (Individual)	Approved
	052-204-2211	Develop a Bill of Materials (BOM) List	052 - Engineer (Individual)	Approved
	052-204-2301	Perform Switching, Blocking and Tagging Procedures	052 - Engineer (Individual)	Approved
	052-206-3101	Produce an Electrical Schematic	052 - Engineer (Individual)	Approved
	052-207-2126	Produce an Electronic Schematic	052 - Engineer (Individual)	Approved
	052-210-1102	Develop a Power Plant Safety SOP	052 - Engineer (Individual)	Approved
	052-210-1117	Design a Temporary Medium Voltage Distribution System	052 - Engineer (Individual)	Approved
	052-210-1129	Manage a Mission Survey	052 - Engineer (Individual)	Approved
	052-210-1138	Manage the Installation of Expedient, Surface-Laid, Electrical-Power Distribution Equipment	052 - Engineer (Individual)	Approved
	052-210-1144	Manage Disaster Relief Operations	052 - Engineer (Individual)	Approved
	052-210-1218	Manage Soil Sample Representative Procedures	052 - Engineer (Individual)	Approved
	052-210-1303	Plan Unit Movement	052 - Engineer (Individual)	Approved
	052-239-3001	Prepare a Bill of Materials	052 - Engineer (Individual)	Approved
	052-244-2144	Read a Schematic	052 - Engineer (Individual)	Approved
	052-244-3101	Check Power Plant to Load Compatibility	052 - Engineer (Individual)	Approved
	052-244-4209	Perform Quality Assurance (QA) and/or Quality Control (QC) Duties	052 - Engineer (Individual)	Approved
	052-244-4211	Conduct Contract Officer's Technical Representative (COTR) Operations	052 - Engineer (Individual)	Approved

Supporting Drill(s): None

Supported AUTL/UJTL Task(s):

Task ID	Title
ART 4.1.7.4	Supply Mobile Electric Power

TADSS

TADSS ID	Title	Product Type	Quantity
No TADSS specified			

Equipment (LIN)

LIN	Nomenclature	Qty
No equipment specified		

Materiel Items (NSN)

NSN	LIN	Title	Qty
No materiel items specified			

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. .

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. .